

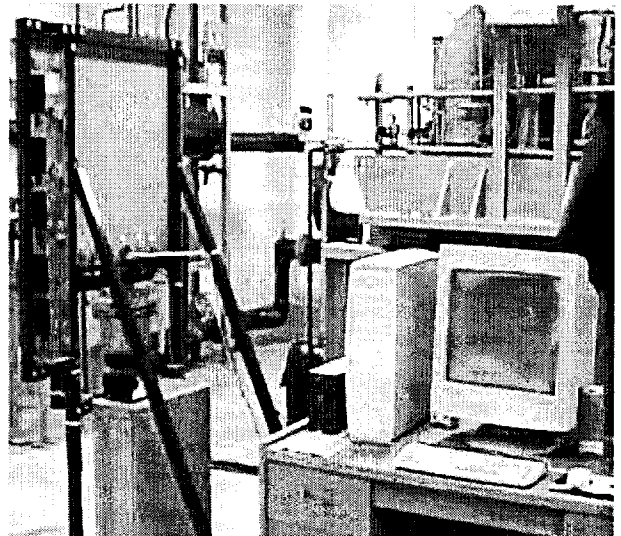
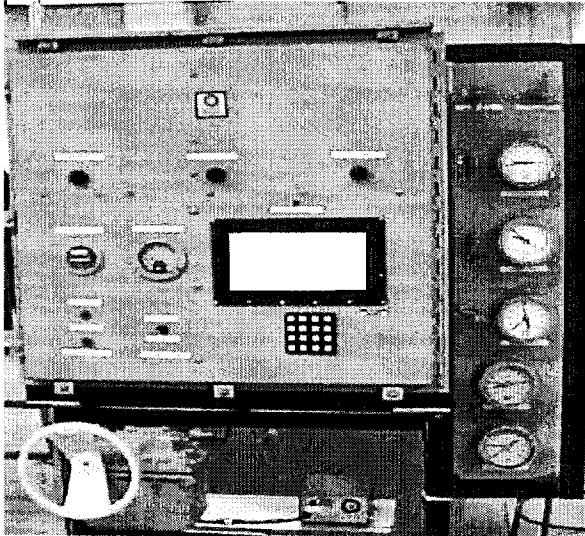
SUMMARY OF
SEAWOLF R-114 AIR CONDITIONING TRAINER

DECEMBER 1998

Device 21H22

NAVAL AIR WARFARE CENTER TRAINING SYSTEMS DIVISION

ORLANDO, FL



TRAINING CATEGORY:

SUBMARINE SYSTEMS

INTENDED USE:

ORIGINATING AGENCY:

CNET

SECURITY CLASSIFICATION OF
DEVICE:

Device 21H22 is unclassified

PURPOSE OF DEVICE:

Provides hands-on training on the operation and maintenance of the SEAWOLF R-114 Air Conditioning system.

Device 21H22 is used to provide operator trainees with the capability to safely perform normal and emergency operational functions such as start up, operation and shut down. It also provides maintenance personnel with the capability to perform preventive and corrective maintenance. Fault analysis and troubleshooting procedures can be performed based on various predetermined fault scenarios provided by the instructor.

FUNCTIONAL DESCRIPTION:

Device 21H22 is installed in a training laboratory at NAVSUBSCOL, Groton. Device 21H22 consists of a modified R-114 Master Control Panel, a Gage Panel, an Interface Control Panel, and an Instructor Station. TTE for tear-down practice are also provided. The Master Control Panel and Gage Panel function identically to those of the tactical system. The Instructor Station Computer receives signals from the Master Control Panel and simulates the appropriate responses via the Interface Control Panel. The Master Control Panel displays R-114 A/C information to the student as simulated by the Instructor Station Computer. The Instructor can change various signals to indicate normal operation or failure indications to the Master Control Panel through the Instructor Station Computer. Students are trained to recognize abnormal indications and take appropriate action to correct the problem. The instructor can follow pre-determined scenarios, or insert specific faults to support individual student training needs. The device conducts an inherent self test each time it is successfully energized.

PHYSICAL INFORMATION:

Device 21H22 requires 42,000 BTUH cooling environmental air conditioning, and must operate at 55-85° F and 30-70% relative humidity.

Laboratory space requirements for the device is a maximum of 14.45 sq. ft of floor space. Additional space is required for personnel access to the trainer for training and maintenance.

EQUIPMENT REQUIRED (Not Supplied):

NONE

POWER REQUIREMENTS:

120VAC, 60 HZ, 30 Amps single phase power panel.

Three 120VAC, 20 Amp receptacles.

One Dry Wall type isolation transformer rated at 5KVA, 480VAC PRI to 208/120VAC SEC.

PUBLICATIONS FURNISHED:

Systems Interface Manual (SIM)
Device 21H22, NAWCTSD P-8083 (U).

Training System Utilization
Handbook (TSUH), Device 21H22
NAWCTSD P-8084 (U).

PERSONNEL:

Instructor - Instructors will be submarine school graduates, instructor qualified, and in pay grade E-5 or above. One instructor is required during trainer operation.

Trainee - One student operator.

Maintenance - The training activity will operate and maintain Device 21H22.

CONTRACT IDENTIFICATION:

Developed by Naval Air Warfare
Center Training System Division,
Orlando, FL.

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